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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/925,321 | 08/10/2001 | Naoyuki Murakami | 110351 | 4777 |

25944 7590 04/05/2005

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| EXAMINER |
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DASTOURI, MEHRDAD

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| ART UNIT | PAPER NUMBER |
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2623

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/925,321 | Applicant(s) MURAKAMI, NAOYUKI | |
| | Examiner Mehrdad Dastouri | Art Unit 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed October 18, 2004, has been entered and made of record.

Response to Arguments

2. Applicant's arguments have been fully considered but they are not persuasive. A digital image is comprised of pixels, which are addressable components in digital image processing (Each pixel will be addressed by its coordinates data.). First and second video signal are different image (video) frames disclosed by both prior arts of record. Recognition of golf ball (or other objects of interest) in different frames are essentially based on comparison of these frames, otherwise no recognition would be accomplished.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helber (U.S. 2002/0165046 A1) in view of Cooper et al (U.S. 5,938,545).

Regarding Claim 1, Helber discloses a video apparatus having a unit for an image analysis comprising:

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a device for generating a first video signal (Paragraphs 0030 and 0031, Professional 35-millimeter Camera);

a memory including a storage region for storing an image analyzing program and a storage region for storing an operating data of an analysis (Figure 11, Video Memory 84; Figure 11, Step "F"; Paragraphs 0033-0035);

an internal analysis processing circuit for carrying out an image analysis of the first video signal according to a procedure of the image analyzing program to output a resultant video signal of the image analysis to an external unit (Figure 1; Paragraphs 0034-0036; Figure 11, Microprocessor 82; Paragraphs 0038-0040; Paragraphs 0056-0060);

an address assignment circuit for assigning an address to a portion of the first video signal based on the result of the image analysis (Figures 1, 5, 6, 9-11; paragraphs 0037, 0048-0050. A digital image is comprised of pixels, which are addressable components in digital image processing (Each pixel will be addressed by its coordinates data.).).

Helber further discloses creating Golf Course information files and updating the database information that suggests comparison of acquired video signals and image setup information, but do not explicitly disclose a comparison circuit for comparing the video signal assigned the address to a video signal of an image set up by the image analyzing program to output the video signal to the internal analysis processing circuit if both of the video signals are the same or similar.

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Cooper et al disclose a video system for determining a location of a body in flight comprising a comparison circuit for comparing a portion of a first and video signal assigned the address (The actual trajectory signal. The signals are inherently assigned their addresses) with a second video signal of an image set up by the image analyzing program (calculated trajectory) to output a subsequent portion of the first video signal to the internal analysis processing circuit if the second video signal of the image setup by the image analyzing program and the portion of the first video signal assigned the address are the same or similar (Figures 1, 4 and 5; Column 3, Lines 63-67, Column 4, Lines 1-22).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Helber's invention according to the teachings of Cooper et al to compare a portion of a first and video signal assigned the address with a second video signal of an image set up by the image analyzing program to output a subsequent portion of the first video signal to the internal analysis processing circuit if the second video signal of the image setup by the image analyzing program and the portion of the first video signal assigned the address are the same or similar (Cooper et al, Column 1, Lines 27-32).

Regarding Claim 2, Helber further disclose the video apparatus according to Claim 1, wherein the video signal comprises signals of three primary colors and a video synchronizing signal (Paragraphs 0068, 0069 and 0063).

Regarding Claim 3, Helber further disclose the video apparatus according to Claim 1, wherein the external unit comprises the input and output means for the image

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analyzing program and a control processing circuit connecting to a display (Figure 11, I/O Unit 86, Microprocessor 82; Figure 2, Display Device 28).

Regarding Claim 4, Helber further disclose the video apparatus according to Claim 1, wherein the device for generating the video signal is a video camera (Paragraph0031).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (571)

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272-7418. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (571) 272-7414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehrdad Dastouri
Primary Examiner
Art Unit 2623
April 4, 2005

MEHRDAD DASTOURI
PRIMARY EXAMINER
Mehrdad Dastouri